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# *Goodyera dongchenii* var. *gongligongensis* (Orchidaceae), a New Variety from Yunnan, China

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**ABSTRACT.** *Goodyera dongchenii* var. *gongligongensis* X. H. Jin & S. C. Chen (Orchidaceae) is described from Yunnan, China. It differs from the typical variety by having strongly white-reticulate leaves and lip up to 1 cm long.

**Key words:** China, *Goodyera*, IUCN Red List, Orchidaceae.

*Goodyera* R. Brown (Orchidaceae) consists of about 80 species distributed from the northern temperate regions to Mexico, Australia, and southeastern Asia (Pridgeon et al., 2003). This genus is characterized by a creeping rhizome, terminal inflorescence with resupinate flowers, lip saccate or hollow usually with hairs inside, short column with one stigma, and sectile pollinia with distinct stipes (Pridgeon et al., 2003). There are about 30 species in China, most of which are used as medicine by local people (Lang, 1999). During our botanical trips to the Dulongjiang River Valley in September 2005 and August 2006, a new variety was found. It was first identified as *G. dongchenii* S. Z. Lucksom, a species restricted to Sikkim and not recorded in China (Lang, 1999; Pearce & Cribb, 2002). *Goodyera dongchenii* is a distinct species that can be distinguished from other Chinese species of *Goodyera* by its leaves distant along the stem, inflorescence not recurved, white flowers, and lip bearing two thick lamellae. However, the new variety has leaves that are strongly white-reticulate and a longer lip. Owing to the taxonomical significance of the colored reticulation on the leaf surface in *Goodyera*, we treat it here as a new variety.

***Goodyera dongchenii*** S. Z. Lucksom, J. Indian Bot. Soc. 72: 191. 1993. TYPE: India. Sikkim: Fambong Lho Wildlife Sanctuary, S. Z. Lucksom 210 (holotype, CAL not seen).

***Goodyera dongchenii* var. *gongligongensis*** X. H. Jin & S. C. Chen, var. nov. TYPE: China. Yunnan: Gongshan Co., Dulong Distr., in forest, 2400 m, 3 Sep. 2005 (fl), X. H. Jin 7953 (holotype, PE; isotype, PE).

A *Goodyera dongchenii* var. *dongchenii* foliis valde albo-reticulatis, labio corollino longiore, usque ad 1 cm longo (non 0.7 cm) differt.

Terrestrial herb; stems 10 cm, 2.5 mm diam. Leaves 2 or 3, ovate, strongly white-reticulate on adaxial surface, 2.5–3.5 × 1.5–2.3 cm; petiole ca. 0.3 cm, basally sheathed and amplexicaul. Inflorescence 8 cm, 8- to 10-flowered, secund; rachis pubescent; sterile bracts 3, lanceolate, ca. 1 × 0.3 cm; floral bracts lanceolate, pubescent, ca. 1.5 × 0.3 cm. Flowers white, slightly open aspect; pedicel with inferior ovary ca. 1 cm long, puberulent; sepals densely hairy; dorsal sepal narrowly triangular, 3-veined, concave, ca. 1 × 0.6 cm, tip curved upward; lateral sepals ovate, acuminate, 3-veined, ca. 1 × 0.6 cm; petals rhombic, 3-veined, ca. 0.9 × 0.4 cm, acuminate; corolla lip ca. 1 cm, basally fleshy, hypochil saccate, setose inside; epichil lanceolate, ca. 0.7 × 0.2 cm, with 2 fleshy ridges ranging from base to tip; column ca. 2 mm, robust; rostellum bifid, ca. 5 mm; anther 2-celled, anther cap beaked, ca. 3 mm; pollinia 4, in 2 pairs, clavate.

**Distribution and habitat.** This reticulate-leaved variety, discovered in the Dulongjiang River Valley in forest at elevations between 2200 and 2700 m, was observed as common in this area. During our two-week stay in this area, five clusters with flowering plants at three separate sites were discovered. These three sites were at distances of 20 km from each other.

**IUCN Red List category.** *Goodyera dongchenii* var. *gongligongensis* is endemic in the Dulongjiang Valley

and known from only three separate localities. Recently, the Dulongjiang Valley has been greatly affected by tourism. Therefore, the new variety can be considered EN (Endangered) according to IUCN Red List criterion B1ab(iii) because of its known area of occupancy and continuing decline of habitat (IUCN, 2001).

*Relationships.* The new variety differs from *Goodyera dongchenii* var. *dongchenii* by having strongly white-reticulate leaves and the corolla lip about 1 cm long. The leaves of the typical variety lack these colored reticulations, and its floral lip is about 0.7 cm long.

*Paratype.* CHINA. **Yunnan:** Gongshan Co., Dulong Distr., in forest, 2700 m, 18 Aug. 2006 (fl), X. H. Jin 8389 (MO).

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